

Service Manual Trucks

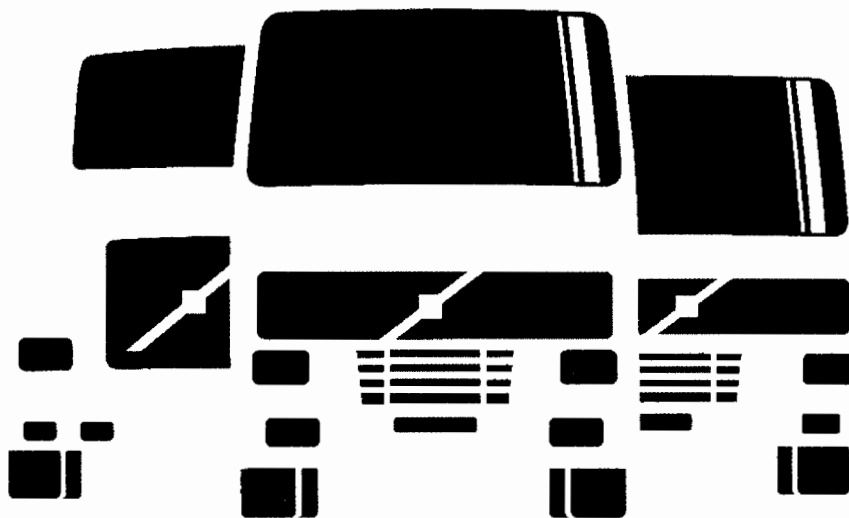
Group **37**

Electrical Schematic:
Vehicle ECU (VECU),

Volvo Engines

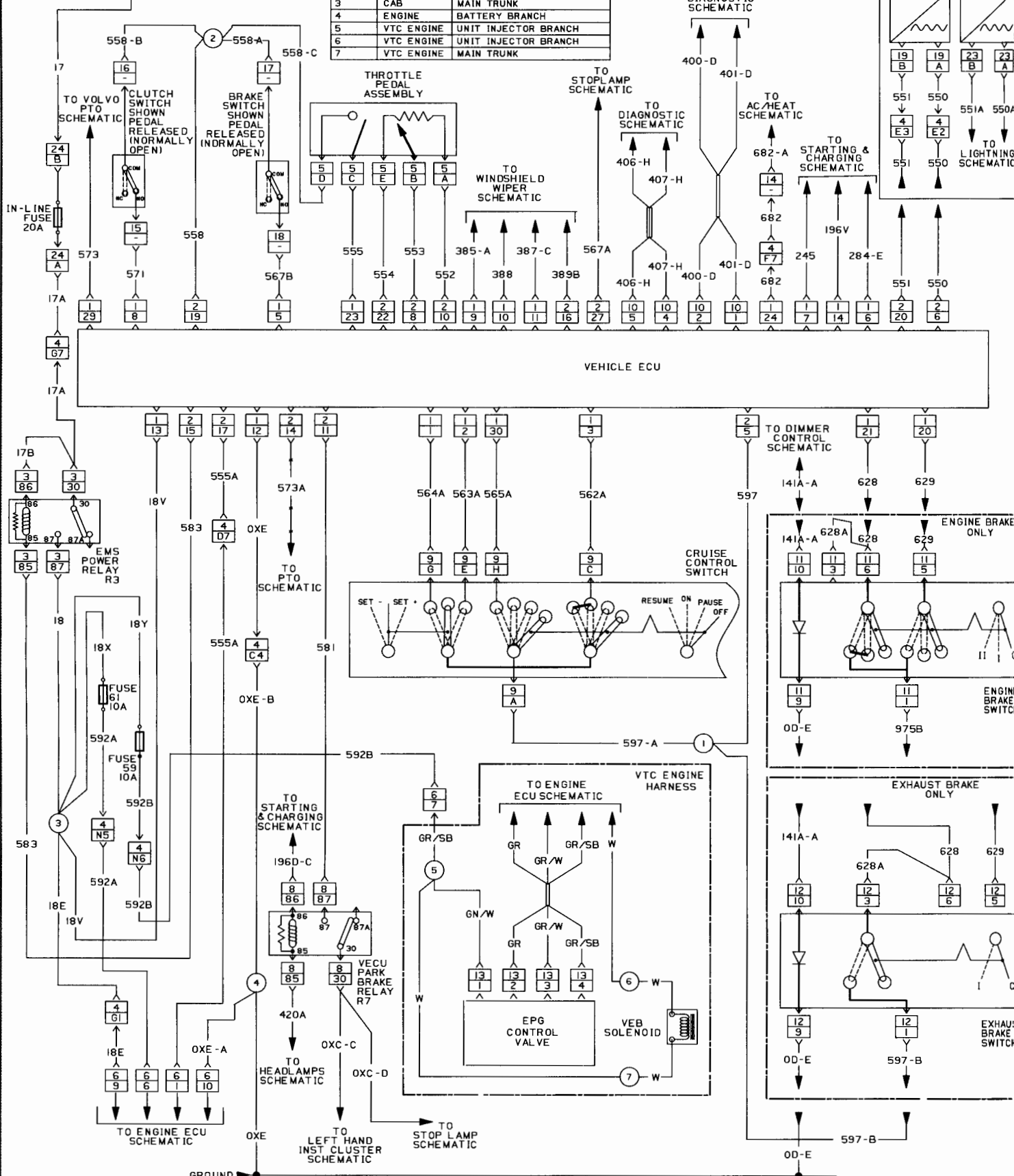
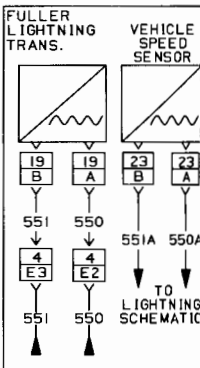
VN

From Build Date 5.99



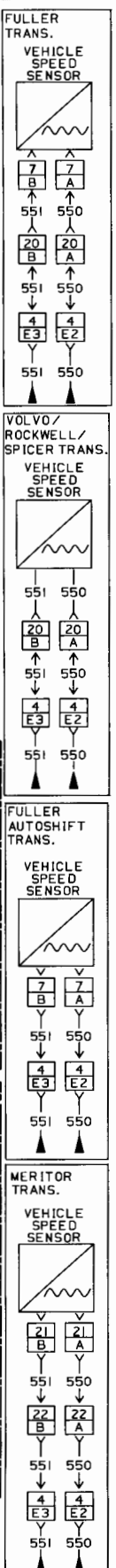
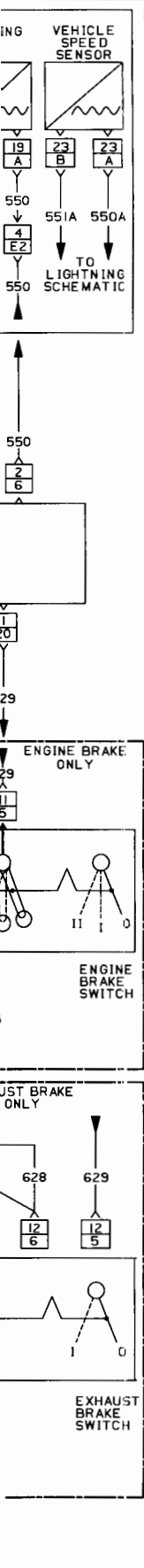
BATTERY 12 VOLT
IGNITION 12 VOLT
ACCESSORY 12 VOLT

| SPLICE LOCATION CHART | | |
|-----------------------|------------|-------------------------|
| SPLICE | HARNESS | LOCATION |
| 1 | CAB | MAIN TRUNK |
| 2 | CAB | 335MM FROM BRAKE SWITCH |
| 3 | CAB | MAIN TRUNK |
| 4 | ENGINE | BATTERY BRANCH |
| 5 | VTC ENGINE | UNIT INJECTOR BRANCH |
| 6 | VTC ENGINE | UNIT INJECTOR BRANCH |
| 7 | VTC ENGINE | MAIN TRUNK |



Vehicle ECU (VECU)

SIDE ENGINE HARNESS
 DENOTES TWIST
 DENOTES J1939



**CONNECTOR AND SPLICE INFORMATION
CONNECTORS VIEWED FROM CABLE ENTRY**

| CONNECTOR 1 VEHICLE ECU CONNECTOR A |
|----------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| 1 564A CRUISE CONTROL SET - |
| 2 563A CRUISE CONTROL SET + |
| 3 562A CRUISE CONTROL ON |
| 5 567B BRAKE SWITCH INPUT |
| 6 284-E 12V START FEED |
| 7 245 ENGINE PREHEAT |
| 9 571 CLUTCH SWITCH INPUT |
| 9 385-A PARK CONTROL WIPER |
| 10 388 SWITCH/INTERVAL WIPER |
| 11 387-C WASHER MOTOR CONTROL |
| 12 OXE VECU GROUND |
| 13 18V SWITCHED BATT. FEED EMS ECU |
| 14 196V IGNITION FEED |
| 20 629 LOW FEED |
| 21 628 MEDIUM FEED |
| 23 555 IDLE VALVE INPUT |
| 24 682 HIGH REF. PRESSURE |
| 29 573 PTO SWITCH INPUT |
| 30 565A CRUISE CONTROL RESUME |

| CONNECTOR 2 VEHICLE ECU CONNECTOR B |
|----------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| 5 597 12 VOLT SUPPLY |
| 6 550 VEHICLE SPEED OUTPUT |
| 8 553 THROTTLE PEDAL SENSOR INPUT |
| 10 552 THROTTLE PEDAL SENSOR SUPPLY |
| 11 581 ECM PARK BRAKE RELAY |
| 14 573A PTO SWITCH OUTPUT |
| 15 583 POWER CONTROL OUTPUT |
| 16 389B INTERMITTENT WIPER RELAY |
| 17 555A BUFFERED IDLE VALVE OUTPUT |
| 19 558 VECU 12 VOLT OUTPUT |
| 20 551 VEHICLE SPEED RETURN |
| 22 554 THROTTLE PEDAL SENSOR RETURN |
| 27 567A SERVICE BRAKE INPUT |

| CONNECTOR 3 EMS POWER RELAY R3 |
|-------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| 30 7A/17B UNSWITCHED BATTERY SUPPLY |
| 86 17B UNSWITCHED BATTERY SUPPLY |
| 87 18 SWITCHED BATTERY FEED |
| 85 583 POWER CONTROL FROM VECU |

| CONNECTOR 4 ENGINE HARNESS PASS THROUGH |
|--------------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| C4 OXE VECU GROUND |
| D7 555A IDLE VALVE INPUT |
| E2 550 VEHICLE SPEED INPUT |
| E3 551 VEHICLE SPEED RETURN |
| F7 682 12 VOLT SUPPLY |
| G1 186 SWITCHED BATTERY FEED |
| G7 17A BATTERY IN POST |
| N5 592A 12 VOLT SUPPLY |
| N6 592B 12 VOLT SUPPLY |

| CONNECTOR 5 THROTTLE PEDAL ASSEMBLY |
|----------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| A 552 THROTTLE PEDAL SENSOR SUPPLY |
| B 553 THROTTLE PEDAL SENSOR INPUT |
| D 555 IDLE VALVE INPUT |
| E 558-C 12 VOLT SUPPLY |
| E 554 THROTTLE PEDAL SENSOR RETURN |

| CONNECTOR 6 VOLVO ENGINE HARNESS |
|-------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| 1 555A IDLE VALVE FEED |
| 6 592A 12 VOLT SUPPLY |
| 7 592B 12 VOLT SUPPLY |
| 9 186 SWITCHED BATT. FEED TO VECU |
| 10 OXE-A ENGINE HARNESS GROUND |

| CONNECTOR 7 VEHICLE SPEED SENSOR |
|-------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| A 550 VEHICLE SPEED INPUT |
| B 551 VEHICLE SPEED RETURN |

| CONNECTOR 8 VECU PARK BRAKE RELAY R7 |
|-----------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| 30 OXC-C/OXC-D PARK BRAKE RELAY GROUND |
| 85 420A PARK BRAKE SW CONTROL |
| 86 196D-C 12 VOLT SUPPLY |
| 87 581 PARKING BRAKE SW INPUT VECU |

| CONNECTOR 9 CRUISE CONTROL |
|-------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| A 597-A COMMON |
| C 562A ON |
| E 563A SET - |
| G 564A SET + |
| H 565A RESUME |

| CONNECTOR 10 VEHICLE ECU CONNECTOR C |
|-----------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| 1 401-D REG DATA LINK SAE J1939 |
| 2 400-D PMS DATA LINK SAE J1939 |
| 4 406-H DATA LINK HIGH SAE J1939 |
| 5 407-H DATA LINK LOW SAE J1939 |

| CONNECTOR 11 ENGINE BRAKE SWITCH |
|-------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| 1 597-B ON/OFF SWITCH FEED |
| 3 628A EXHAUST BRAKE FEED |
| 5 629 MEDIUM FEED |
| 6 628/628A LOW FEED |
| 9 OD-E ILLUMINATION GROUND |
| 10 141A-A ILLUMINATION |

| CONNECTOR 12 EXHAUST BRAKE SWITCH |
|--------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| 1 597-B ON/OFF SWITCH FEED |
| 3 628A EXHAUST BRAKE FEED |
| 5 628/628A EXHAUST BRAKE FEED |
| 9 OD-E ILLUMINATION GROUND |
| 10 141A-A ILLUMINATION |

| CONNECTOR 13 EPG CONTROL VALVE VED12B |
|------------------------------------------|
| TABLE OF CONTENTS |
| CAVITY COLOR FUNCTION |
| 1 TCP GR/W 12V POWER SUPPLY |
| 2 CR GR NOT CURRENTLY USED |
| 3 CS GR/W EPG 2 CONTROL |
| 4 CT GR/SB EPG 1 CONTROL |

| CONNECTOR 13 EPG CONTROL VALVE VED12C |
|------------------------------------------|
| TABLE OF CONTENTS |
| CAVITY COLOR FUNCTION |
| 1 TCP GR/W 12V POWER SUPPLY |
| 2 CR GR NOT CURRENTLY USED |
| 3 CS GR/W EPG 2 CONTROL |
| 4 CT GR/SB EPG 1 CONTROL |

| CONNECTOR 14 FAN SWITCH OPTION |
|-----------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| - 682-A 12 VOLT SUPPLY |

| CONNECTOR 15 CLUTCH SWITCH |
|----------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| - 571 CLUTCH SWITCH INPUT TO ECU |

| CONNECTOR 16 CLUTCH SWITCH |
|-------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| - 558-B ECU GROUND |

| CONNECTOR 17 BRAKE SWITCH |
|------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| - 558-A VECU 12 VOLT OUTPUT |

| CONNECTOR 18 BRAKE SWITCH |
|------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| - 567B BRAKE SWITCH INPUT |

| CONNECTOR 18 SPEED SENSOR CONNECTOR |
|----------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| A 550 VEHICLE SPEED INPUT |
| B 551 VEHICLE SPEED RETURN |

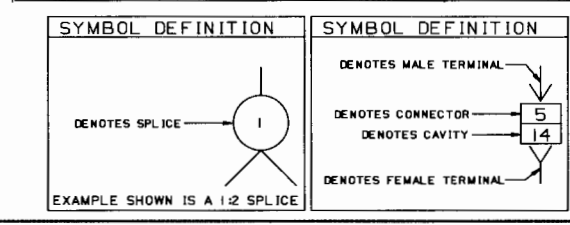
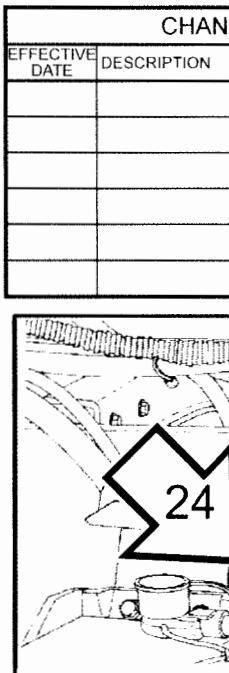
| CONNECTOR 20 SPEED SENSOR CONNECTOR |
|----------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| A 550 VEHICLE SPEED INPUT |
| B 551 VEHICLE SPEED RETURN |

| CONNECTOR 21 SPEED SENSOR |
|------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| A 550 VEHICLE SPEED INPUT |
| B 551 VEHICLE SPEED RETURN |

| CONNECTOR 22 SPEED SENSOR |
|------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| A 550 VEHICLE SPEED INPUT |
| B 551 VEHICLE SPEED RETURN |

| CONNECTOR 23 VEHICLE SPEED SENSOR |
|--------------------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| A 550A VEHICLE SPEED INPUT |
| B 551A VEHICLE SPEED RETURN |

| CONNECTOR 24 FUSE HOLDER |
|-----------------------------|
| TABLE OF CONTENTS |
| CAVITY CIRCUIT FUNCTION |
| A 17A 12 VOLT SUPPLY |
| B 17 12 VOLT SUPPLY |



SIDE ENGINE MOUNTED PTO ONLY
 DENOTES TWISTED CABLE
 DENOTES J1939 JACKETED CABLE

| CHANGE HISTORY | |
|----------------|--|
| DESCRIPTION | |
| | |
| | |
| | |
| | |
| | |

